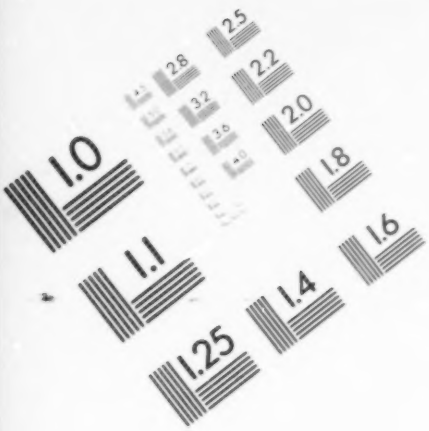

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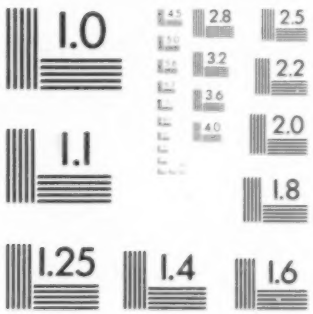

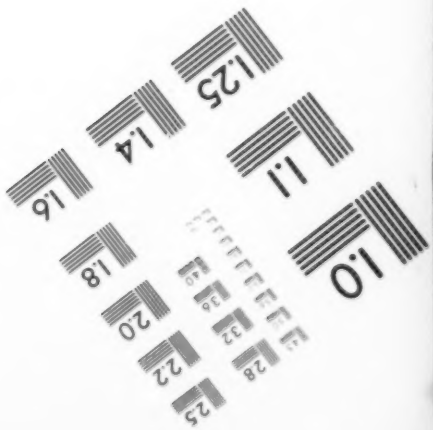

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ABSTRACT

This parents' guide presents articles on school indoor air pollution, children's health and the symptoms of indoor air pollution, and how schools can improve their air quality. Also included are tips on what to do if the school ignores air quality problems, and some examples of what school districts should be doing to improve their air quality. Several web sites are listed for more information on school environmental health. (GR)

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Parents' Guide to School Indoor Air Quality

January, 1998

Healthy Schools Network, Inc.
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Parents' Guide to School Indoor Air Quality

www.healthyschools.org

January 1998

THE BASICS: Indoor Air Pollution

Air pollution is air pollution, indoors or out. Good indoor air quality (IAQ) contributes to a favorable learning environment for students, protects health, and supports the productivity of school personnel.

Over the past 40-50 years, indoor air pollution has increased due to a variety of factors, including the construction of tightly sealed buildings, the reduction of ventilation rates to save energy, the use of synthetic building materials and furnishings, and the use of chemically formulated personal products, pesticides, and cleaning supplies.

In schools in poor repair, leaky roofs and crumbling walls have caused additional indoor air quality problems, including contamination with lead and asbestos, dust, or radon. United States Environmental Protection Agency studies of human exposure to air pollutants indicate that indoor pollution levels may be 2-5 times, and sometimes 100 times, higher than outdoor levels. Most people spend 90% of their time indoors.

It is easy to understand why school decisions to cut spending on cleaning and repair ("deferred maintenance") are penny-wise and pound-foolish: resulting air pollution can harm occupants and multiply the cost to repair buildings later.

THE BASICS: Children's Environmental Health

Children's health is uniquely affected by our environment. Today, children are growing up with complex environmental threats to health—from asthma-inducing air pollution to toxic chemicals.

Children are particularly vulnerable to environmental health risks because: 1) their bodies are still developing, 2) they proportionally eat, drink, and breathe more per pound of body weight than adults, 3) they are exposed to more environmental threats, and 4) they are least able to identify or to protect themselves from exposures to different environmental hazards.

Air pollution has long been implicated in childhood deaths, hospitalization, school absenteeism, and reduced quality of life resulting from respiratory problems. Health-impaired children may need special protections in order to promote optimal health and learning.

Asthma is the most chronic childhood illness in the United States, affecting some 4.8 million children under age 18. In New York State alone, there are more than 320,000 cases of pediatric asthma, based on federal estimates. Schools are not required to report student accident, illness, injury, chronic health impairments, or absentee rates to the State Education Department (SED).

US EPA'S "TOOLS FOR SCHOOLS"

The United States Environmental Protection Agency created this self-help kit since so many schools have IAQ problems which can be resolved easily and at low cost with the assistance of school personnel. It has been sponsored at the national level by: the EPA, the American Federation of Teachers, the National Education Association, National PTA, the American Lung Association, and others. In NewYork, the members of the Healthy Schools Network have endorsed "Tools for Schools," as has the State Education Department. Free copies are available through your local BOCES or they can be purchased from the EPA by calling (202) 512-1800 or faxing (202) 512-2250.

"Every child and school employee has a right to an environmentally safe and healthy school which is clean and in good repair."
New York State Board of Regents - December 1994

Symptoms of Indoor Air Pollution

The chart below shows some typical signs/symptoms of IAQ problems. Not every individual reacts the same way to air pollutants. Children may react differently than adults. Since poorly maintained buildings are likely to have many pollutants, it is also likely that individuals could have reactions to several pollutants at the same time. Building occupants who are asthmatic, allergic, chemically sensitive, wear contact lenses, or have impaired health may be particularly vulnerable.

There is growing evidence that poor IAQ can produce verbal, perceptual, motor, and behavioral disabilities in children. It can also cause hearing impairments, irritability and developmental delays.

Signs & Symptoms	Possible Causes (see key to the right for explanation)
Respiratory rhinitis, nasal congestion	1, 2, 3, 4, 6
nosebleed	4
pharyngitis, cough	1, 2, 3, 4, 6
wheezing, worsening asthma	2, 6
shortness of breath	1, 3, 6
severe lung disease	1
Other red, watery eyes	1, 2, 3, 4, 6
headache or dizziness	1, 2, 3, 4, 5, 6
lethargy, fatigue, malaise	1, 2, 3, 4, 5
nausea, vomiting, loss of appetite	2, 3, 4, 5
cognitive impairment, personality change	1, 2, 4, 5
rashes	3, 4, 5
fever. chills	3, 5
rapid pulse	2, 5
retinal hemorrhage	2
muscle aches	1, 4
hearing loss	5

THE BASICS: Schoolhouse Conditions

Schools are our children's workplaces. They are about four times more densely occupied than offices. Yet, schools are not required to meet certain standards for maintaining facilities.

In New York State, schools must submit the results of an annual fire safety inspection and five-year Capital Asset Preservation Plans to the Education Department's Office of Facilities Planning. However, this office is not staffed to provide oversight of these processes.

Nationally, the US Government Accounting Office estimates that 1/3 of all schools need basic repair. At least 60% need to correct an environmental problem, such as poor ventilation or heating or lighting. In New York State, the same study indicated that 21% of schools reported inadequate heating, 37% inadequate ventilation, and 24% poor IAQ. Thirty percent of schools in New York State also reported poor acoustics.

KEY TO CAUSES OF SYMPTOMS:

1. **Sick Building Syndrome**
2. **Combustion Products** (space heaters, furnaces, etc.)
3. **Biological Pollutants** (molds, dust mites, animal dander, etc.)
4. **Volatile Organics** (formaldehyde, pesticides, solvents, cleaning agents)
5. **Heavy Metals** (airborne lead and mercury vapor)
6. **Environmental Tobacco Smoke**

"Asthma is the most chronic childhood illness in the US, affecting some 4.8 children under age 18."

- American Lung Association

Helping Schools Improve IAQ

If you believe that your school as an IAQ problem, the logical place to start is with the Facility Director, Head Custodian or Building Principal. However, the best way is usually by talking informally with a school staff member who knows you and your child. He or she may also know if any other parent or staff member has expressed similar concerns.

The next step is to find another parent or a teacher to accompany you on your fact-finding. When asking questions, stress that solving IAQ problems will help everyone. It should be a "win-win" issue.

What to ask the building staff:

✓ **the school nurse-** about recent student health problems, and if they know about training for New York State school health professionals in recognizing Environmentally Triggered Illnesses;

✓ **the teacher or support staff representatives** - about staff health complaints or other knowledge about this building's IAQ and if their unions are concerned;

✓ **the Facility Director/Head Custodian** - to walk you through the building and point out repair needs, maintenance plans, staffing and funding;

✓ **the Principal or Superintendent** - for results of any air quality investigations and plans to correct problems.

Individuals are rarely successful in addressing school IAQ. With your facts in hand, get other parents and/or school personnel interested in fixing the easy problems and preventing future costly ones. Ask the local parent association (PTO, PTA, etc.) if it would advocate a program to fix your school's IAQ. If it isn't interested, form your own group, starting with two or three people.

Write a letter to the building principal asking the school to follow up on your information by setting up an IAQ committee which includes parents (of course, offer to be on the committee!) and follows the US EPA's "Tools for Schools" air quality self-help kit for schools.

BECOMING AN IAQ ACTIVIST

Parents and children have unique disadvantages with respect to school IAQ. Children don't connect their symptoms to air quality. Those with headaches and tummy aches may be seen as malingering. The chronically affected may be sent for counseling or may be referred for special learning services.

Parents' chief advantage lies in being able to independently reach other parents, the broader community, state agencies, and the press.

Start by keeping a simple log book or diary. Note the date, your child's health, learning issues, people you reached, facts gathered.

When to Suspect a School IAQ Problem:

- the roof leaks; the building smells damp, or has been flooded
- the building is newly renovated and hasn't "baked out"
- the building is fully carpeted
- your child frequently comes home from school with odd smells on his or her clothing
- your child has health/learning problems only in that building and not during vacations, or in other settings
- building maintenance and repair are always under-budgeted

DEFINITIONS:

Sick Building Syndrome (SBS) - a term coined in the 1970's to describe a situation when a substantial proportion of building occupants report health problems associated with occupancy. It is usually attributed to poor design, inadequate ventilation, or toxic materials.

IAQ Emergency - when limited time is available to avert serious health problems or property damage. Examples include: toxic materials spills, symptoms of carbon monoxide poisoning, widespread breathing problems or chest tightness, Legionnaires' Disease or TB, flooded or water damaged carpeting/floors.

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WHAT TO DO IF SCHOOL IGNORES IAQ PROBLEMS

Parents trust schools to take care of their children. Parents never expect school officials to refuse information or to misinform. Anticipate the bureaucracy. Keep written records and keep your cool.

Be positive; be persistent; be careful and don't take "no" for an answer. In the worst cases, personnel report job retaliation. Activist parents report bullying of their children, even threats to educational programs.

After you have exhausted all efforts at the building level, contact the district Superintendent. If you are still refused information, write to the Board of Education.

If indoor air pollution is a problem for many people, call your nearest Council on Occupational Safety and Health, State Department of Health, or State Education Department. Ask them to respond in writing to your concerns.

You may also write to the State Education Department's Office of Facilities Planning, the New York State Board of Regents, your State Senator or Assemblyman. Keep copies of all of your letters. If all else fails, consider sharing them with the local media.

To gain access to public information, write a letter to the building principal and/or school Superintendent requesting specific information. Schools are public agencies and *must* comply with the **Freedom of Information Act** within *five days*. Here are some examples of information that you can request access to:

- Fire Safety Report

(Continued on page 5)

IAQ Regulations/Professional Certification

There is no single regulation or standard defining acceptable air quality. This is why an "air quality test" is not always cost-effective or an indicator of over-all healthy air. There is no certification or licensing of air quality professionals.

For information about current IAQ standards (such as allowable levels of carbon monoxide, carbon dioxide, dry cleaning fumes or other toxic solvents, formaldehyde, etc.) call the New York State Department of Health. Center for Environmental Health at 1 (800) 458-1158, or the US EPA at 1 (800) 438-4318.

Examples of What School Districts Should Be Doing

✓ Simple Changes to Improve IAQ

Open fresh air intakes. Use low-odor, low-toxicity supplies.
Enforce smoking bans. Discourage perfumes and colognes.
Move bus idling areas away from building. Remove wet, moldy carpets.
Ban upholstered furniture in classrooms.
Use nontoxic methods to control pests.

1. ***Have a district-wide committee which addresses IAQ and other environmental concerns.*** This committee can be part of a "Health and Safety Committee" or a "Shared Decision-Making Committee". The following groups should have representation on the committee: parent/community members, school nurses, facility director , central administration, teachers, support staff, and other unions represented in the school district.
2. ***Have building-level committees which address specific concerns.*** Again, parents and staff should be represented on the committee.
3. ***Have a report form available to parents and school personnel for reporting environmental quality questions and concerns.***
4. ***Keep a formal record of health symptoms that are reported to schools nurses.***
5. ***Regularly train staff on health and safety issues.***
6. ***Use US EPA's "Tools for Schools" self-help kit to prevent and fix school building IAQ problems.***

TIPS FROM PARENTS:

"Try to identify specific problems, such as poor ventilation or toxic cleaning materials. . ."	*"Build on the successes of other school districts that have made positive changes."*
"Document everything."	*"Don't be the Lone Ranger. Try to get other parents involved."*

Special Accommodations for Allergic Children

When your child seems to be the only one with serious, disabling reactions to indoor air pollution, you may request "accommodation" for their environmental health needs.

Employees have a right to "reasonable accommodation" in the workplace. "Reasonable accommodations" are changes which do not place an unusual cost on the employer. Children, however, have only one chance at an education and are compelled to attend school. Thus, children have even stronger rights: the right to a **Free Appropriate Public Education** (FAPE) in the **Least Restrictive Environment** (LRE).

Discuss with your physicians what kinds of environmental controls would be helpful and follow them at home. Ask the district to forward basic literature to you about accommodation under **Section 504 of the Rehabilitation Act** or **Individuals with Disabilities Act (IDEA).** If the district says it is not familiar with these laws or is not required to respond during summer vacation, call the State Education Department or US Office of Civil Rights immediately.

Make sure you understand your rights before you proceed. Do **not** refer your child to the school's Section 504 Committee or CSE (Committee for Special Education) until you have read the literature. Discuss these issues with your physician.

The accommodation your child needs and whether the district easily approves the request depends on two things:
1) on your working relationship with the district and your physician
2) on the degree to which your child's reactions interfere with the ability to think, learn, or breathe in school.

Some schools have easily and informally provided modest changes in the classroom, such as a seat by the window and a portable air cleaner. Other parents have been asked to show physician letters and have their child evaluated by a school-designated team of specialists. Accommodations specified in plans are individually tailored to each child, and must be approved by the district's Board of Education.

While modest changes in seating may be all that one child needs in a carpeted, dusty classroom, another child may need changes in cleaning supplies, pest management programs, or instructional supplies. Whatever your child needs, make sure that you can document that you can successfully control your child's health and learning problems with similar measures at home. Never ask schools to do more than you do for IAQ.

MORE TIPS

Many IAQ problems can be prevented by school staff and students. Prevention is cheaper and healthier than pollution clean-up.

Air quality measurements should be taken under actual operating conditions—when the building is fully occupied.

*If your child requires special accommodations and school officials refuse to cooperate, you may request **Mediation** or an **Impartial Hearing.***

After a "Section 504 Plan" is in place, be sure to request annual reviews of the plan.

WHAT TO DO IF SCHOOL IGNORES IAQ PROBLEMS, CONTINUED

(Continued from page 4)

- Material Safety Data Sheets (MSDS) for materials and supplies in use or stored in the building
- Capital Asset Preservation Plan
- Emergency Preparedness Plan
- Pesticide product labels, application dates, and the name of the applicator
- School budget and expenses (look for "Operations and Maintenance" expenses)
- Reports on results of testing for lead, radon, asbestos, air quality and names of consultants/companies who carried out the testing, as well as the type of test, date and time.

WEB SITE

Healthy Schools Network, Inc.
www.healthyschools.org

The National PTA's Environmental Action and Awareness Program
www.pta.org/programs/envlibr.htm

The National Safety Council's Environmental Health Center
www.nsc.org/ehc.htm

The United States Environmental Protection Agency
www.epa.gov/iaq

Children's Environmental Health Network
www.chen.org

Natural Resources Defense Council
www.nrdc.org

Center for Environmental Education
www.teachgreen.org.cee

Parent's Guide to IAQ

Healthy Schools Network, Inc.
773 Madison Avenue
Albany, New York 12208

Some useful phone numbers

American Lung Association
(800) LUNG-USA (586-4872) automatically rings at nearest ALA office

NY State Education Department (SED), Office of Facilities Planning
(518) 474-3906 or your own state education agency

NY State Department of Health (DOH), Center for Environmental Health
(800) 458-1158 or your own state department of health

US Environmental Protection Agency (EPA)
(800) 438-4318 OR (212) 637-4013 (Region 2)

Parent's Guide to IAQ

Additional Resources Available from Healthy Schools Network, Inc.

Allergies, Asthma, and Chemical Sensitivity

Carpeting-Healthy Choice

Environmental Exposure at Schools

504 Accommodation Plan

Healthier Cleaning & Maintenance

Kick the Pesticide Habit

Environmental Action Guide for NYC Schools

To order these or ask about other resources, call
Or visit us at www.healthyschools.org